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## CONSTRUCTION STRUCTURE OF WALL SURFACE

### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

The present invention relates to a construction structure of wall surface comprised in an inner wall or an outer wall of a building.

#### 2. Description of the Related Art

Conventionally, outer and inner walls of buildings are constructed through fitting of a plurality of building boards onto a building frame. A sealing material is provided for joining the building boards, for countering dimensional changes of the building boards over time, and for waterproofing the building.

For instance, Japanese Patent Application Publication No. 2003-343024 discloses the feature of providing a hat joiner, having a linear projection, between the end faces of adjacent external facing members, and forming a joint by providing a sealing material at a portion formed between the front face of the linear projection and the end face of the external facing members.

However, the joint formed by providing the sealing material is likely to be noticeable, which is problematic. Also, sealing deteriorates over time, and performance in terms of durability, waterproofness and so forth becomes impaired, which is likewise problematic. Further, the passage of time gives rise to discoloration and impaired appearance, and makes it necessary to repair and/or renew the deteriorated sealing material.

Accordingly, Japanese Patent Application Publication No. 2003-328529 discloses a vertical joint structure wherein siding panels are arranged on a joiner to which a waterproof material is attached, such that the end portions of the siding panels are butt-joined to each other.

No sealing material is required in the structure of Japanese Patent Application Publication No. 2003-328529, and hence the problem of noticeable joints that form by providing a sealing material does not occur, nor is repair or renewal necessary upon deterioration of the sealing over time. However, it is difficult to manufacture the siding panels with good enough precision so as to preclude gaps from appearing upon butt-joining to other siding panels, and the joining portions between siding panels are readily noticeable. Also, the dimensions of the siding panels change over time, and hence gaps appear at the joining portions between siding panels, or small gaps become larger, among other problems.

### SUMMARY OF THE INVENTION

The present invention provides a construction structure of wall surface that has no sealing material and in which a joining portion between building boards is inconspicuous.

The present invention provides a construction structure of wall surface.

A construction structure of wall surface includes: a hat joiner; and a building board. The hat joiner has a fixing plate portion and a design portion, and the building board has a design portion extending linearly on a surface. A joint at which the design portion of the hat joiner constitutes a design surface, and a joint at which the design portion of the building board constitutes a design surface, are formed in a same direction, by arranging the building board in plurality to left and right, or above and below, of the design portion of the hat joiner. In the present invention, a width of the joint at the design portion of the hat joiner is the same as a width of each

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of the design portions on the surface of each of the building boards. Alternatively, a color of the design portion of the hat joiner is the same as a color of each of the design portions of each of the building boards. Therefore, a joint at which the design portion of the hat joiner constitutes a design surface cannot be readily distinguished from the design portion of the surface of the building boards, and thus the joint is inconspicuous. Also, no sealing material is provided, and hence the problem of deterioration of the sealing material over time does not occur, which renders unnecessary repairs or renewal associated with deterioration. The building boards are disposed with a gap in between, and hence dimensional changes of the building boards are hardly noticeable, and pose no problem.

In the construction structure of wall surface of the present invention, a top section of the design portion of the hat joiner may be disposed flush at the same height as top sections of surfaces of adjacent building boards, or may be disposed higher than surfaces of adjacent building boards. Preferably, the top section of the design portion of the hat joiner is disposed higher than the surfaces of adjacent building boards, since unevenness among the building boards becomes inconspicuous in that case. That is, unevenness occurring between building boards becomes inconspicuous, even if the thicknesses of building boards that are adjacent across the hat joiner are dissimilar, by disposing the top section of the design portion of the hat joiner at a higher position.

Accordingly, the top section of the design portion of the hat joiner may be disposed lower than surfaces of adjacent building boards. In this case as well, unevenness between building boards becomes hardly noticeable.

The design portions of the building boards may be formed by coating, or may be formed by projections and/or recesses, or by a combination of the foregoing.

Also, an end portion of surface of the building board may be chamfered at a joint comprising the design portion of the hat joiner and the building board. In this case, preferably, a shape identical to the chamfer of the end portion of surface of the building board is provided in the design portions of the building boards, in a same direction as that of the chamfer, since, as a result, a joint at which the design portion of the hat joiner constitutes a design surface cannot be readily distinguished from each of the design portions on the surface of each of the building boards, and thus the joint is inconspicuous.

The present invention allows providing a construction structure of wall surface that has no sealing material and in which a joining portion between building boards is inconspicuous.

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a diagram of an embodiment of a construction structure of wall surface according to the present invention, viewed from above;

FIG. 2 is a diagram of the construction structure of wall surface illustrated in FIG. 1 viewed from the front;

FIG. 3 is a perspective-view diagram of a hat joiner of the construction structure of wall surface illustrated in FIGS. 1 and 2;

FIG. 4 is a diagram of another embodiment of the construction structure of wall surface according to the present invention, viewed from above;

FIG. 5 is a diagram of yet another embodiment of the construction structure of wall surface according to the present invention, viewed from above;